

Sidebands

The Newsletter of the EAST GREENBUSH AMATEUR RADIO ASSOCIATION



www.egara.club

October 2019

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Going Solar!

Free power that can keep you on the air during outages

By Fred Carroll, AJ4CN

They say there's no free lunch -- but harnessing solar power can come pretty close. Yes, there is some upfront cost, including solar panels, power controllers and storage batteries. But it can be a cost-effective way to provide power to your shack, especially if you lose commercial power. And, depending on the capacity of your solar array and associated equipment, you can even have enough backup power to keep vital appliances like your refrigerator running. That peace of mind can be priceless.

The basics of solar power was the program topic during September's membership meeting. If you missed it, or are looking for a quick refresher on what was covered, you'll find it here. For starters, let's look at the components that are at the heart of almost every solar power system.

First, of course, is the solar panel itself. Solar cells are made primarily from silicon, a chemical element with conductive properties. Exposure to light changes silicon's electrical characteristics, which generates an electric current. Every system will need at least one, but it's not unusual to build a system that ties several panels together to boost overall capacity. Panels that produce 25 watts of 12 volt power can be found in the \$50 to \$75 price range.

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Solar panels can be mounted just about anywhere that has good exposure to the Sun.

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Mini-Hamfest Set for October

EGARA's October 9th membership meeting will feature the club's annual "Mini-Hamfest," giving club members and area hams alike the chance to sell, buy or swap equipment with no admission fee! In addition, the club will provide free refreshments to all.

The event will take place at the East Greenbush Masonic Lodge on Columbia Turnpike during the club's regular monthly meeting starting at 7 pm on October 9th. Tables will also be offered at no charge. EGARA members are urged to spread the word to other area hams. In addition to providing an opportunity to sell and buy gear, our Mini-Hamfest also offers a social event for local Amateurs to get together.



Next EGARA Meeting - Mini-Hamfest! - October 9, 2019

Going Solar...

For under \$200, you can even purchase a complete 100 watt system that features four solar panels, a basic controller that manages charging a 12 volt battery, mounting brackets and hook-up cables. Harbor Freight offers such a system, and it's easy to get another 20% off when you use one of their readily available coupons, but I don't personally recommend this system as there are better options available.

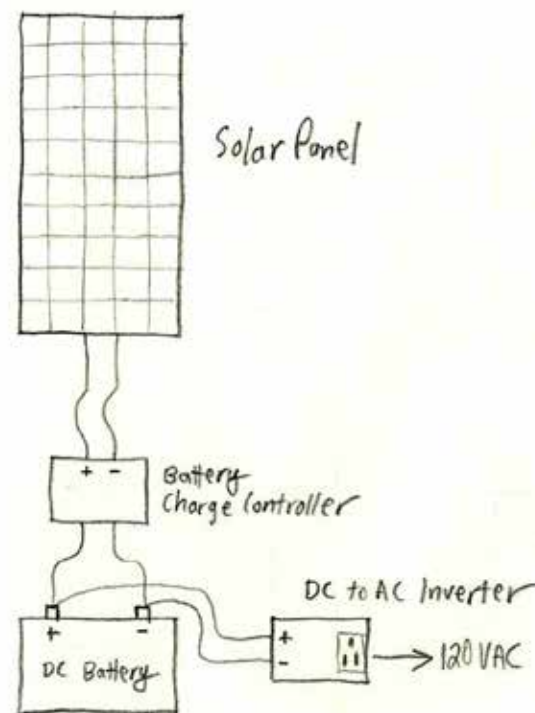
Solar panels should not be connected directly to your system's storage battery because it may be overcharged and damaged as a result. To ensure your battery is safely charged, a controller is required. It will need to be matched to the capacity of your solar panels -- and the higher the capacity, the higher the cost will be. But a controller for a 25 watt system can be under \$30.

The final piece of your system will be the battery. Here you will have a wide range of options depending on the storage capacity you want and the projected demands you will have for power. Batteries are rated in amp-hours and it determines how long a battery can deliver a consistent power output. For example, if a battery is rated for 100 amp-hours and it is connected to a 10 amp load, it should be able to power the load for approximately 10 hours ($100/10=10$).

There's also a wide range of battery types to choose from. These include lead-acid, lithium ion, gel cell and even salt water batteries, an old technology that's relative newcomer to the game. In addition to the various construction types, there is also a range of capacities.

For instance, using a typical lead-acid car battery for storage will generally provide about 48 amp hours of output. If you were to run a radio that draws 1 amp during receive mode, it could be powered for roughly 48 hours. If transmitting jumps the power demand to 12 amps, you could operate for about four hours. In actuality, since you would never transmit continuously, your operating time would be somewhere in between those two values. By adding a solar panel charging system, you could greatly extend that time and even run the radio on solar power alone providing your panels produce enough output.

Of course, if there's other equipment you want to run "off the grid" you'll need to figure in that consumption too. And, if that gear relies on regular 110 volt AC power, you'll also need an inverter which changes 12 volt DC power to regular household line voltage. Inverters consume higher rates of power, however, especially if you're looking to power your fridge during a blackout. If power failures occur regularly at your location, you may want to consider a rooftop solar array that uses several panels to produce substantial amounts of juice. You'll also need a charge controller big enough to handle the load and several batteries to store the power that's created. You can also install an inverter system that directly feeds your home's electrical system, in turn lowering your utility bill. And, if your system produces excess power than your needs, you might even sell some of it back to the utility.



However, the larger the system you install, the more expensive it will be and the longer before it pays for itself. But if having power during blackouts is important to you, that also needs to be factored in.

A solar power system can be portable too. Smaller portable systems can easily be set up for field use and can either extend the operating time of batteries or even run HT or QRP radios that have modest power requirements.

Finally, how long do solar panels last? You can generally expect 20 years of service with at least 80% rated output. They don't quit after that, but continue to drop in efficiency and output. Still, not a bad lifespan!

EGARA Set to Get Scouts On The Air

EGARA will team up on October 19th with Cub Scouts from the East Greenbush Arrow of Light Pack 2257 to participate in the “Jamboree-On-The-Air” (JOTA) which gives youngsters the chance to learn hands-on about Amateur Radio. The event will help the Scouts earn their “Build a Better World” Merit badge.

The program is tentatively slated to be held at the Masonic Lodge hall from 10 am until 2 pm, with club members working one-on-one with the scouts to operate club radios and make contact with other scouts across the country. In addition to operating, the scouts will be given a chance to help set up antennas and equipment.

“Getting youngsters involved in Amateur Radio is key to the hobby’s future, so we’re excited to be hosting this event for our local Cub Scouts,” said EGARA President Tom Scorsone, KC2FCP. “Jamboree-on-the-Air is the largest Scouting event in the world and we hope our Scouts will be making lots of contacts.”

JOTA is held annually the third full weekend in October. Scouts of any age can participate and the World Scout Bureau reported that the 2017 JOTA-JOTI had over 1.5 million participants from more than 160 countries. EGARA plans to help the local Scouts send QSL cards to the contacts they make. Each Scout will be given a log sheet to record the contacts they make. The club will also develop and distribute hand-outs that explain in basic terms how Amateur Radio works and how to get a license.

“Once we decided to participate in the Jamboree, we needed to find local Amateur Radio operators to work with,” said Danielle Schaff, who serves as Cub Master of Pack 2257. “A quick Internet search brought us to the EGARA website and we were thrilled when the club offered to help us.”

The club’s proposed involvement was discussed during its September membership meeting and received unanimous support.

“When Scouts want to meet young people from another country, they usually think of attending a World Jamboree,” said EGARA Treasurer and former Scout Bryan Jackson, W2RBJ. “Few people realize that each year more than a million Scouts “get together” over the airwaves for the annual Jamboree-on-the-Air. We hope this opportunity to be involved with Amateur Radio will result in some of these youngsters catching the “bug” to go on to become licensed hams themselves.”

The club’s JOTA event is expected to draw approximately a dozen Scouts ranging in age from five to ten. EGARA members who wish to help out should email W2RBJ@outlook.com.

To help ensure that Scouts make contact with each other, JOTA has specific preferred frequencies for each of the Amateur bands, as shown in the chart below.



Band	WOSM Calling Frequencies	Suggested Band Segment for US Stations	Notes
80 m	3.940 & 3.690(1)	3.920 – 3.940 3.670 – 3.690 (1)	(1) Extra segment
40 m	7.190 & 7.090 (2)	7.180 – 7.200 7.270 – 7.290	(2) 7.090 not available in Region 2
20 m	14.290	14.270 – 14.290 14.320 – 14.340	
17 m	18.140	18.140 – 18.150	
15 m	21.360	21.360 – 21.400	
12 m	24.960	24.960 – 24.980	
10 m	28.390 (3)	28.350 – 28.400 (3)	(3) Includes Novices & Techs
6 m	50.160	50.160 – 50.200	

FCC Proposes to Make All Universal Licensing System Filings Electronic



The FCC is seeking comment on a Notice of Proposed Rulemaking (NPRM) that is part of an overall plan to transition completely to electronic filing, licenses, authorizations, and correspondence. The notice proposes to make all filings to the Universal Licensing System (ULS) electronic, expand electronic filing and correspondence elements for related systems, and require applicants to provide an email address on the FCC forms related to these systems.

Although much of the FCC's ULS filings are already electronic, the changes suggested in the NPRM (in WT Docket No. 19-212) would require all Amateur Radio Service applications to be filed electronically. Under current rules, Amateur Radio applications may still be filed manually, except those filed by Volunteer Examiner Coordinators (VECs).

"Given the drastic changes that have occurred with regard to the ubiquity of the internet and increased personal computer access, we find it unlikely that electronic filing remains infeasible or cost-prohibitive for the previously exempted types of filers, or that they lack resources to file electronically," the FCC said in the NPRM, released on September 6. "We therefore propose to eliminate Section 1.913's exemptions to mandatory electronic filing."

The FCC said that while the vast majority of ULS applications today are submitted electronically, some are still manually filed, largely from exempted filers, such as radio amateurs. Last year, the FCC received some 5,000 manually filed applications out of a total of some 425,000. The FCC is seeking comment on whether its underlying assumptions about the ease of electronic filing for previously exempted filers are valid.

This NPRM also seeks comment on additional rule changes that would further expand the use of electronic filing and electronic service. The FCC stopped providing printed Amateur Radio license documents in 2015.

"Together, these proposals will facilitate the remaining steps to transition these systems from paper to electronic, reducing regulatory burdens and environmental waste, and making interaction with these systems more accessible and efficient for those who rely on them," the FCC said.

Comments are due within 30 days of the NPRM's release.

ARRL Renews Request for FCC to Replace Symbol Rate with Bandwidth Limit

In ex parte comments filed on September 17, ARRL renewed its request that the FCC delete symbol-rate limits for data transmissions in the Amateur Service rules. ARRL asked the FCC to couple the removal of the symbol rate limits with the adoption of a 2.8 kHz bandwidth limit. In response to a 2013 ARRL Petition for Rulemaking (RM-11708), the FCC proposed deleting the symbol-rate limits but declined to replace them with the 2.8 kHz bandwidth that ARRL wanted.

"This proceeding addresses an update to the Commission's rules that is needed because a limitation in the rules unintentionally is inhibiting US amateurs from employing the latest improvements to some of the digital modes," ARRL said in its remarks. "Data signals commonly used for daily communications as well as in disaster situations have bandwidths in the range of 2.5 kHz and must co-exist with other modes that use bandwidths as narrow as 50 Hz."

ARRL said the 1980s-era symbol-rate limits now inhibit the use of some efficient data modes. "The symbol rate limit uniquely prevents radio Amateurs in the United States from experimenting and innovating with a class of modern digital communication techniques that already are widely used in other countries," ARRL told the FCC. "The limit also impairs the ability of Amateurs to improve support that they offer in times of disaster."

Repealing the symbol-rate limit would "allow shortened transmission times for the same amount of data without increasing the bandwidth occupied by the signal," ARRL contended. "Other Amateurs would benefit by the resulting reduction in potential interference."

DXpedition to use FT8 robot?

By Dan Romanchik, KB6NU

It's inevitable. At some point, machines are going to render humans irrelevant. It's been a recurring theme in science fiction since before I was born (1955), and there are numerous predictions of the Singularity, the point in time when machines will be smarter than human, occurring between 2030 and 2045.

It may happen in amateur radio sooner than we think. A couple of days ago, one of my readers, sent me a link to a blog post by John, AE5X: Automated FT8 "FoxBot" in upcoming DXpedition – confirmed (<https://ae5x.blogspot.com/2019/08/automated-ft8-foxbot-in-upcoming.html>). He wrote:

"A DXpedition to Tokelau will take place from 1 to 11 October and it will be your chance to work an FT8 robot operating in Fox/Hound mode.

"Stathis SV5DKL has been working on a "FoxBot" for some time now, is listed as a partner to this DXpedition and has confirmed that the DXpedition will be using his FoxBot."

John has since updated this post, noting "The SV5DKL logo has now been removed and the DX team will be in 'full compliance' with the mode." Full compliance meaning following the rules set up by the ARRL DXCC rules.

The ARRL is, of course, against the use of robots. A recent ARRL Letter noted:

"ARRL has incorporated changes to the rules for all ARRL-sponsored contests and DXCC, prohibiting automated contacts and requiring that an actual operator is initiating and carrying out a contact. These changes also apply to Worked All States (including Triple Play and 5-Band WAS), Fred Fish W5FF Memorial, and VUCC awards. The changes are effective immediately and affect the rules for both HF contests, and VHF/UHF contests as well as DXCC.

"A resolution at the July ARRL Board of Directors meeting pointed to 'growing concern over fully automated contacts being made and claimed' for contest and for DXCC credit. The rules now require that each claimed contact include contemporaneous direct initiation by the operator on both sides of the contact. Initiation of a contact may either be local or remote."

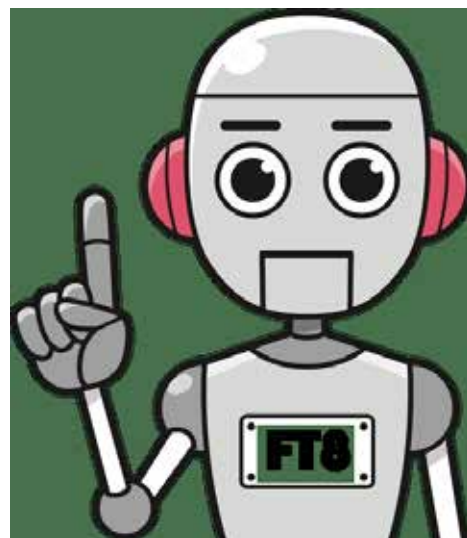
As AE5X says, however, the use of FT8 robots in the future is a certainty. Sooner or later, some DXpedition is going to use an FT8 robot without saying anything about it. How is the ARRL going to know that a DXpedition is using robots if the DXpedition operators don't tell them?

I'm wondering when some DXpedition is going to give up on SSB and CW altogether. Why bother with those modes when you can make hundreds or thousands more contacts by just operating FT8?

Another thought just occurred to me. If the ARRL gets its way and Techs are awarded HF digital privileges, how long will it take for some enterprising Tech to make the DXCC Honor Roll using FT8 exclusively. Oh, the horror of it all!

About the Author: Dan is the author of the "No Nonsense" amateur radio license study guides.

You can read his ham radio blog at <http://www.kb6nu.com>



Hams Needed!

The Rip Van Winkle Amateur Radio Society is seeking six hams to help staff a horse riding competition on Sunday, October 6th from Noon to 3:30 pm. The event will be held at a facility on State Farm Rd in Valatie. Simplex communications will be used to relay scores from the obstacle course, along with other pertinent information, such as emergency/safety information in the event of an accident. Volunteers will use their HT own radios and it's advised to bring a lawn chair and some refreshments, however lunch will be provided at Noon. To participate, contact Joe Sacco, KC2JMS, by email at: Jmsacco@gmail.com -- or call him at: 518-701-4071. EGARA members who assist will earn a service credit point which goes towards their annual award.

EGARA September Meeting Minutes

- The September 11th meeting of the EGARA was called to order at 7:15 PM by President Tom Scorsone, KC2FCP;
- A moment of silence was held in memory of the victims of 9/11;
- A motion was made by Bryan Jackson, W2RBJ, to make a monetary donation to the Mohawk-Hudson Humane Society in memory of Rick Gross (SK), a past member of EGARA. Rick was a supporter of EGARA's field Day efforts and loved animals. The motion approved and carried unanimously;
- The Treasurer's report was made and approved;
- A brief summary of the Field Day results was given. Overall, the total points were off slightly compared to 2018;
- The annual EGARA cruise on the Hudson is planned for Oct. 5th. All members are invited and should be at the Port Authority parking lot by 9:30;
- A VE session will be conducted on November 9 at the East Greenbush Community Library;
- The October EGARA membership meeting will be the annual Oktoberfest – mini hamfest. Members from all clubs will be invited to sell and swap radio equipment;
- EGARA members are being sought to help with the Boy Scout “Jamboree On The” Air to help cub scouts earn their radio communication merit badges. The date is October 19th;
- Members were urged to monitor the Hurricane watch Net on 7.268 during tropical storms and help relay information during activation – especially during low sunspot conditions which make conditions less optimum;
- Fred Carrol, AJ4CN gave a multi-media presentation on his solar power system. There were many questions asked and Fred explained how he used his system for auxiliary power and as an emergency backup system;
- The 220mhz repeater installation is still in limbo – awaiting completion of the re-pack of the many TV channels at the proposed site on Helderberg Mountain;
- As customary, refreshments of coffee, soda, and pizza were provided to all the attendees;
- The meeting was adjourned by 8:07 PM.
- --de Steve VanSickle WB2HPR / Secretary

Save the Dates

- **October 5th - Annual Hudson River Cruise - 10 am**
 - **October 19th - Scouts On-The-Air**
- **November 9th - Fall VE Exam Session - 10 am**

On the Beam

News & Notes

Former ARRL President Larry Price is SK at 85

ARRL and International Amateur Radio Union (IARU) President Emeritus Larry E. Price, W4RA, of Statesboro, Georgia, died on September 10. An ARRL Life Member, he was 85. Price was licensed in 1951 at age 16 as WN5TIA, one of the first Novice licenses issued in the US. A US Army veteran, Price held BSEE, MBA, and doctoral degrees. He spent most of his career as a professor of finance and economics at Georgia Southern University.

Elected as ARRL Southeastern Division Vice Director in 1973, Price became Director later that year and was elected as an ARRL Vice President by the Board of Directors in 1980. In 1983 he became First Vice President following the death of ARRL President Vic Clark, W4KFC, and was elected President by the Board the following year.

He served as ARRL President for 8 years, serving simultaneously as IARU Secretary from 1989 until 1992, and continuing as IARU Secretary and ARRL International Affairs Vice President until his election as IARU President in 1999, a post he held for 10 years. The IARU Administrative Council named him President Emeritus upon his retirement in 2009. The ARRL Board named him ARRL President Emeritus in 2011.



Celebrating 100 Years of WWV

It's a celebratory year for the WWV stations as they mark a century of service.

The WWV Centennial Committee will mount a special event station on October 1st adjacent to the WWV site in Colorado to mark the 100th anniversary of the time and frequency standard station, the world's oldest continuously operating radio station.

The Northern Colorado Amateur Radio Club (NCARC) is leading the event.

Although the US government cannot fund any Amateur Radio special event expenses, the club members will be allowed to use a 15-acre parcel on WWV property, Swartz explained on the WWV Centennial website. "The operating site lies outside the security fence and simplifies logistics," he said.

WWV has a long and storied history that dates back to the very beginning of radio broadcasting. The call letters WWV were assigned to NIST (then called the National Bureau of Standards) in October 1919. Although the call letters WWV are now synonymous with the broadcasting of time signals, it is unknown why those particular call letters were chosen or assigned.

Testing of the station began from Washington, D.C. in May 1920, with the broadcast of Friday evening music concerts that lasted from 8:30 to 11 p.m. The 50 W transmissions used a wavelength of 500 m (about 600 kHz, or near the low end of today's commercial AM broadcast band), and could be heard out to about 40 kilometers. By December 1922, it was decided that the station's purpose would be the transmission of standard frequency signals. The first tests were conducted on January 29th and 30th of 1923, and included the broadcast of frequencies from 200 to 545 kHz. By May of 1923, WWV was broadcasting frequencies from 75 to 2000 kHz on a weekly schedule. The accuracy of the transmitted frequency was quoted as being "better than three-tenths of one per cent." The output power of the station was 1 kW.

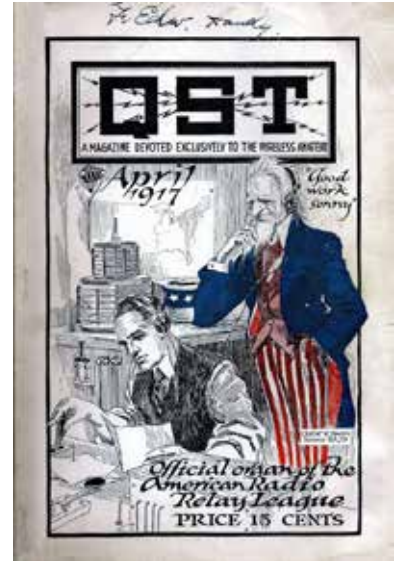
The History of Ham Radio: The Lid

Chris Codella, W2PA, author, John Pelham, W1JA, editor, Phil Johnson, W2SQ, editor

(Editor's note: By special arrangement with the authors, Sidebands is pleased to present this multi-part series on the history of ham radio. Subsequent chapters will be published in future monthly editions of the newsletter)

As it seemed ever more likely that the US might enter the war in Europe, radio amateurs speculated about their own role. Referring to it as “the disturbance,” a late-1916 QST editorial noted that the president had activated the National Guard and that Signal Corps units had been particularly prominent in the call-up.

One Connecticut amateur, David Moore, 1ZZ, a member of his state's unit and one of the original governors of the ARRL, related his experience: “The attitude of the Government, particularly the Army, is that we amateurs are all right as far as we go, but the trouble is we are all located in the big cities where the machinery of civilization is fully developed and at hand. The telephone and the telegraph are at hand, and only in extraordinary emergencies could they see where we could be of use.” This is surprisingly similar to views you hear today about the utility of amateur radio in the age of satellites, cell phones and the Internet. He went on to say that if hams were able to situate stations in remote areas with no infrastructure, they'd be exactly what the government needed—a foreshadowing of Field Day and many emergency operations to come. The editor continued to describe portable sets, and called upon amateurs to fill the extraordinary need for operators in the signal corps.



At a “Junior encampment” in Plattsburg, New York, which later became the Army's Officer Candidate School, 3,500 servicemen from across the country were assembled that fall, including a number of radio amateurs. One of them, L. S. Somers, Jr., 3AFE, was relaxing along a roadside, enjoying a rest period during a long training march. He absent mindlessly blew a CQ using a blade of grass between his thumbs and was immediately answered by five other members of the H Company, Fourteenth Regiment who were within earshot. They formed a group that same day and would frequently get together to discuss radio.

The Army did not quite yet grasp the potential of the amateurs already embedded within its ranks, but soon would.

In February 1917, as the United States officially broke off diplomatic relations with Germany, QST opened a “Department of Defence” conducted by Edgar Felix, for discussing national security and defense-related activities for radio amateurs. Relaying naturally took center stage. A national relay system could be set up with volunteers assigned to 15-minute blocks of time twice per month when they would commit to be on the air to handle messages in time of war. Its effectiveness would depend primarily on the discipline of members in meeting their assigned on-air schedules.

The idea was compared with how the French had recently used boy scouts to carry messages and help their nation in other ways after it mobilized. It was also compared to other events from history: the runners of ancient Greece, Paul Revere's ride, and the “cannonaide,” as it was called, used to announce the completion of the Erie Canal in 1825. By firing a succession of cannon along the canal's length and down the Hudson River, the news of its opening was carried from Buffalo to New York in about ninety minutes—an audio-frequency relay.

Message relaying had always been all about spanning greater distances and the challenge of “the game.” But now the ARRL intended to demonstrate to the government that the relay system could also be used for public good in times of crisis. QST went so far as to assert, incorrectly it turned out, that the outcome of trunk line tests would determine whether or not the League would be shut down in time of war. The final March editorial posed the big question on everyone's mind: If the country went to war, would amateurs be permitted to continue operating?

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The answer quickly became clear. The April editorial declared it a near certainty that if war came, amateurs would be off the air for transmitting and probably receiving too. Nevertheless, the League held out hope that certain stations that were deemed useful would be called upon to continue operating. But that would depend on the availability of operators and stations, their willingness to keep constant operations going (multi-operator at one station), and in any case would probably only be allowed to receive. For the rest of the amateurs, QST recommended making good use of the idle time by studying the radio art. ARRL and QST would not be closed up; the magazine could serve as the main vehicle for amateurs to keep in touch. This turned out to be wishful thinking.

Despite the threatened shutdown, the ARRL was poised for expansion—such was the momentum in amateur radio at the war's onset. By the three-year anniversary of its founding, the League had grown beyond the capacity of a few people, mostly just Maxim and Tuska, to keep things running. On 28 February, six members of the League's leadership from Connecticut and New York met at The Engineers Club in New York City to work on restructuring the organization for the expected growth. Some had never before met in person. "After getting used to looking at, instead of listening to, each other..." they drew up a constitution, elected an initial set of directors and six division managers to supersede the trunk line Managers. For several of them this was simply a change of title. They, in turn, would appoint district superintendents who would appoint assistants. The entire group, many in their twenties, would then comprise the "Operating Department" of the ARRL. With General Manager A. A. Hebert, 2ZH, in charge of League affairs, headquarters would be in New York City, with a mailing address at 50 Church Street, his business address.



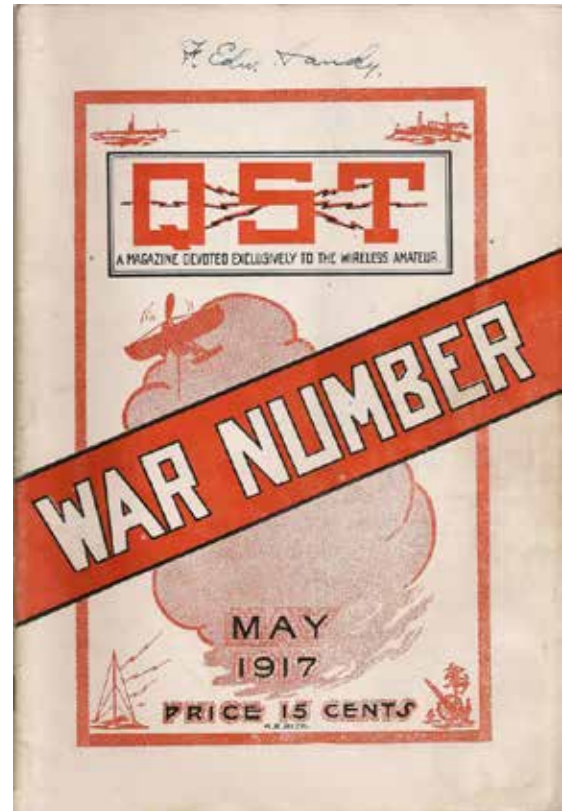
ARRL Board of Direction – L-R: C. D. Tuska, H. L. Stanley, Victor F. Camp, T. E. Gaty, H. P. Maxim, A. A. Hebert, C. R. Runyon, Jr., Miller R. Hutchison, J. O. Smith

A picture of the Board of Direction meeting appeared in May QST along with the new constitution in its entirety and a map of the divisions. The constitution stated that the organization's objective (I:2) "shall be the promotion of interest in radio communication, in such subjects as are allied thereto, and in the relaying of messages without charge." Membership (II:1) would be open to "Anyone interested or engaged in radio telegraphy or telephony..." Together, the president, vice president, general manager, secretary, treasurer, and division directors constituted the Board of Direction, which would be the League's primary governing body, with the president as its chairman. Amendments to the constitution could be adopted by a two-thirds vote of the board, except for changing the headquarters location, which would require a four-fifths vote. A life membership was offered for \$25; regular dues were \$2.

Normally, such a major restructuring would have received top billing in QST. But on the May issue's cover a red banner declared it to be the "WAR NUMBER." A full page announcement opposite the table of contents began, "War Measure!" and, "WE ARE AT WAR. AMATEUR WIRELESS IS AT A STANDSTILL. OUR STATIONS ARE CLOSED." Although the circulation was continuing to increase, the number of pages would be decreased to make up for the loss of advertising revenue.

An order from the Department of Commerce, Navigation Service, Office of Radio Inspector, addressed to "all Radio Experimenters" was mailed to all licensed amateurs, and reprinted in QST. It ordered the immediate cessation of all operation, both transmitting and receiving as feared, but went even further to require the disabling of all equipment, and lowering and disconnection of all antennas. An enclosed "blank," to be used to indicate compliance, was demanded from radio amateurs under threat of "rigid investigation." The order was signed by the District Communications Superintendent, an unidentified Navy Lieutenant. The QST editor lamented,

"Every amateur station is closed down. The lid is on and clamped tightly for a period of time, the duration of which no man knows. All amateur traffic is halted where it happened to stand. All plans for improvements are cancelled. All the plans of our manufacturers are in mid-air. In short, the great amateur wireless advance in these United States is stopped."



At the same time, however, the military had an acute and immediate need for radio operators and no time to train new ones. There was no question about what the estimated 6,000 amateurs should be doing after being put off the air. Nearly 4,000 eventually served, contributing to the Navy's staff of radiomen which grew from just under 1,000 to nearly 7,000 by the war's end.

The ARRL Board of Direction responded by passing a resolution to offer the full support of the organization and its more than 3,000 members to the US Government. It would provide operators and equipment and, holding out hope for some way to operate, was prepared to "...undertake the organization and direction of a systematic plan to eliminate the operation of secret illegal wireless plants, which will be used to supply the enemy with traitorous information..."

The lead editorial that month was a call for enlistment into Navy and Army radio operations. For weeks the Navy had been appealing for radio operators to enlist or join the reserve.¹³ Maxim and General Manager Hebert were asked by the authorities to help recruit amateurs to man and equip coastal "patrol stations" as receiver operators; this editorial was the result.¹⁴ Amateurs could enroll in this service, working six hours per day for the duration of what was now being referred to as "the German war." They would get a \$60 uniform allowance, at least \$30 pay per month depending on ability, and \$1.50 for "subsistence" until quarters could be provided.¹⁵

The anticipated demand for radio equipment was so great that the Navy asked the League whether its members would provide it with equipment for fair value. The matter would be left up to the individual members.

Accordingly, the war was expected to quickly prompt a significant expansion of radio-related manufacturing. With many amateurs selling their gear to the military, there would also be a huge demand later and amateurs anticipated a tremendous improvement in their stations when the war eventually ended—perhaps a silver lining to the pervasive storm clouds of spring 1917.

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The Lid...

As summer, the perennial period of increasing static and decreasing on-air activity (even without the ban), approached the editor noted that the volume of message traffic had nevertheless grown tremendously and had been extending later into the season. In fact, before the shutdown this was the first time that March had ever been the heaviest traffic month.

He then turned philosophical:

"Every once in a while one of you fellows writes in a letter and tells about the feeling of intimate acquaintance and friendship which he feels toward everybody concerned in the A. R. R. L. It always warms the cockles of our heart and inspires us. Just why we wireless bugs seem to possess this brotherly feeling to a greater extent than other groups of people, is not entirely plain. Some times we think it is because of the deeper and more abstruse problems which we have to face. We who are closely identified in the study of radio communication are brought very close to the wonders of Nature. The great laws which govern all things and which we must always observe, gives one a very much deeper regard for truth than comes to those who follow only the ordinary matters of life. The fact that we are all troubled with the same things, arouses a feeling of brotherhood. The fact that we appreciate one another's failures and successes brings us close together. The romance of sitting alone in a little out of the way room among a lot of instruments, and yet be in communication with congenial spirits in other distant and out of the way little rooms, is conducive to profound and reverent thoughts. The fun which bubbles over from so many of us, and finds expression in QST, is one of the interesting manifestations of the effect of our work upon us."

He expressed a hope that amateurs would be returning soon, and that this same feeling would remain even when the number of hams grew ten-fold in the future.

Thoughts on Hurricane Dorian and What We Learned

By Steve VanSickle, WB2HPR



Florida ARES volunteers relaying vital storm information in preparation for Hurricane Dorian

During the time that hurricane Dorian struck the Windward islands, until it finally departed the Canadian Maritimes, severe weather had a severe impact on the east coast of north America. Many areas suffered loss of life and tremendous loss of property. To compound matters, communications systems in the affected areas were compromised or totally destroyed. Once again, the ham radio community pitched in to augment, and in some cases, substitute for those lost communications paths.

During the height of the storm, I was out of town – listening with my portable station – while the Hurricane Watch Net conducted 'round the clock operations to keep in touch with other hams in the storms path.

The net gathered weather data, such as wind speed, direction, humidity, and barometric pressure. The raw data was relayed to the National Hurricane Center (NHC), and in turn, they sent the latest storm tracking data back to the Net. The Net, in turn, re-broadcast this updated information on an hourly basis.

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Preparing for Dorian...

It was no easy task to maintain net operations during the storm. Stations participated from many regions of the US and Canada – with operations on 7.268 LSB being the most effective. With sunspots at a minimum and solar storm activity, there were many stations monitoring and relaying information to and from the net control operators.

Because 40 meter propagation seemed to be the most effective, stations from as far away as Ontario Canada to Texas were able to help relay information and act as net control. These stations were able to provide a seamless interface with the NHC and other agencies during the nearly two week storm event.

Even though we weren't in the direct path of the storm, many of us know people or have relatives in the storm area, and had a profound interest in the events as they unfolded. Listening to those net operations impressed upon me the need to be prepared for future severe weather, particularly in our area. I ask the questions: Do you have an HF rig that will operate on 40 meters LSB.? (You need at least a "General" class license to operate) How about backup power? Or do you have a "Go" kit with emergency supplies?

The next time you hear of a storm like Dorian, get on the air, if it is safe to do so. You just might be called upon to relay a message. If you are away from your home station, you can at least monitor the Net by using the SDR at K3FEF.com using your Android or other mobile device. Participate in local ARES and RACES nets and drills.

The bottom line: Be prepared – protect yourself and your family, stay informed, and help those that may request your help through ham radio.

Monitoring the Hurricane Watch Net (HWN)



Hurricane season is upon us and continues until mid-November. As with any severe weather event, Amateur Radio plays a vital role and the Hurricane Watch Net is an important part of that effort.

The Hurricane Watch Net is a group of amateur radio operators who are trained and organized "to provide essential communications support to the National Hurricane Center during times of Hurricane emergencies." The HWN focuses on "ground truth" observations (much like SkyWarn nets).

The Hurricane Watch Net is activated when a hurricane is within 300 statute miles of expected land-fall. The HWN covers the Caribbean, Central America, Eastern Mexico, Eastern Canada, and all US Coastal States.

The HWN operates in both English and Spanish, and is active on 14.325 MHz (upper sideband) during the day and 7.268 MHz (lower sideband) at night. The HWN is known to operate on both frequencies if propagation allows.

Please keep HWN frequencies clear! Whenever the Net is activated, Amateur operators are asked to please avoid using 14.325 MHz and 7.268 MHz.

CALENDAR

October 5, 2019 - Annual Hudson River Cruise, 10 am, Port of Albany Commission Dock.

October 9, 2019 - Monthly Club Meeting at 7 pm, East Greenbush Masonic Lodge. Field Day planning.

September 28 - October 2, 2019 - WWV Special Event Station. Visit <http://www.100.com/> for more info.

November 9, 2019 - Fall VE Exam session, East Greenbush Library, 10 am.

Pro Tip: A Smooth Running Generator

Many of us have a portable gasoline generator for use when we lose power. But if you use it only occasionally, you may find it's not ready to go when you need it -- especially if it's been sitting for a while with today's commonly sold ethanol-blended gas that contains 10% alcohol.

Gasoline with ethanol is fine for your car, but it can wreak havoc with small engines that often sit unused for extended periods of time. The alcohol content is notoriously hard on some fuel lines and can also attract water. It also shortens the useful life of gasoline. As a result, small engines such as those on a generator, can run rough or even refuse to start at all.

So, what to do?

Luckily, there's a couple of options. The best is to use gasoline that's ethanol-free. There are several gas stations in the local area that offer it, including most Stewart's shops that sell gas. The other less desirable choice is to use an ethanol treatment which is added to the gas.

Regardless of which option you choose, consider adding a liquid "stabilizer" to the tank of your small engine to help extend the life of the gasoline.

It's also a wise practice to run your generator for a few minutes each month and let it come up to operating temperature. This will help keep it in peak running condition and give you a chance to check for proper operation. It's also a good idea to have a load on the generator while it's running. Plugging in a couple of lights is usually enough.

A little TLC will ensure your generator will be there for you when you need it.



For Sale

TYT MD-UV380, purchased in April comes with charger, speaker mic, antenna. Asking \$100.00 or reasonable offer.

Contact: stephen.lohnes@gmail.com

Kenwood TS-690 - 100 watt HF/6meter transceiver. With two mics and complete operating manual. Perfect working condition. \$450.00.

Contact Bryan at W2RBJ@outlook.com

Johnson Valiant Transmitter AM & CW - \$ 600.00

DX 60 Transmitter AM & CC With VFO - \$ 125.00

DX 35 Transmitter AM & CW With VFO - \$ 125.00

Eldico R124 Receiver - \$300.00

MFJ Model 1995 Portable Antenna, 40 To 10 Meter - \$75.00

For items above, contact Tom at: KC2FCP@nycap.rr.com

Arrow Model 52-S4 - 4-Element 6 Meter Yagi antenna in good condition. \$75.00

2 Meter Yagi - 3 element, rugged - used - only \$10!

MFJ Model 989C Antenna Tuner - legal limit, very little use, in immaculate condition. \$225.00 -- (new was \$359.00). See: <https://www.universal-radio.com/catalog/hamtune/1332c.html>

For above, contact Steve at: svansick@nycap.rr.com

Military Watt Meter AN/URM-120 B/U 2 to 1000 MHZ. Complete and with Carrying Case. In excellent condition. Never abused or used on the road. Great Shack / Bench Watt Meter. Picture available. \$125.00

Yaesu FT-2900 Programing Software by RT Systems Inc, on CD, Version 5, Windows XP, 7,8,and 10. Cable included. Used once. Registered and includes password. \$35.00

For above, contact John at: Radiowizzz@aol.com

Got gear to sell or swap? Looking to buy?

Sent your items to: W2RBJ@Outlook.com

The East Greenbush Amateur Radio Association

Organized in 1998, by Bert Bruins, N2FPJ, (SK) and Chris Linck, N2NEH, the East Greenbush Amateur Radio Association, an ARRL affiliate, is committed to providing emergency services, educational programs, and operating resources to amateur radio operators and residents of the Capital Region of New York State. The club station is W2EGB. The club also has several VHF and UHF repeaters open to club members and the public.